IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

ELLIS et al.   Atty. Ref.: 36-1372

Serial No. 09/674,073   Group: 2154

Filed: October 26, 2000   Examiner: El Hady, N.

For: SERVICE PROVISION SUPPORT SYSTEM

* * * * * * * * * * *

October 23, 2006 (Monday)
(October 21 = Saturday)

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Appellant hereby **appeals** to the Board of Patent Appeals and Interferences from

the last decision of the Examiner.

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(I)   <u>REAL PARTY IN INTEREST</u>

The real party in interest is British Telecommunications public limited company, a

corporation of the country of England.

(II)   RELATED APPEALS AND INTERFERENCES

The appellant, the undersigned, and the assignee are not aware of any related

appeals, interferences, or judicial proceedings (past or present), which will directly affect

or be directly affected by or have a bearing on the Board's decision in this appeal.

(III)   STATUS OF CLAIMS

Claims 1-19, 32-35, 38, 40-48 and 51-61 have been canceled. Claims 20-31, 36-37, 39, 49-50 and 62-63 are pending. Claims 20-31, 36-37, 39, 49-50 and 62-63 have been rejected. The rejections of claims 20-31, 36-37, 39, 49-50 and 62-63 are being appealed.

In more detail, claims 20, 36-37, 39, 49-50 and 62-63 have been rejected under 35 U.S.C. §102 as allegedly being anticipated by and/or under 35 U.S.C. §103 as allegedly being "obvious" over TINA Consortium Publications: (1) Overall Concepts and Principals of TINA, Version 1.0, February 1995, hereinafter "TINA-1"; (2) Network Resource Architecture, Version 3.0, February 1997, hereinafter "TINA-2"; and (3) Service Component Specification, Computational Model and Dynamics, Version 1.0b, Final, January 1998, hereinafter "TINA-3". Claims 20-28, 30 and 31 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by and/or 35 U.S.C. §103 as allegedly being "obvious" over Yates et al (U.S. '586, hereinafter "Yates"). Claim 29 has been rejected under 35 U.S.C. §103 as allegedly being "obvious" over Yates in view of Ginzboorg et al (U.S. '051, hereinafter "Ginzboorg"). The various rejections of claims 20-31, 36-37, 39, 49-50 and 62-63 are being appealed. No claims have been substantively allowed.

(IV)   <u>STATUS OF AMENDMENTS</u>

No amendment was filed subsequent to the rejection mailed February 21, 2006.

The status of the claims is the same as that presented in the Amendment/Response filed

January 30, 2006.

(V)   SUMMARY OF CLAIMED SUBJECT MATTER

A listing of each independent claim, each dependent claim argued separately and each claim having means plus function language is provided below including exemplary reference(s) to page and line number(s) of the specification.

20.   A communications system comprising a plurality of client side and server side computing elements, each computing element supported by a distributed processing environment whereby distributed software objects in different physical parts of the system interact by passing messages via data communications links, the communications system including service generic code and service specific code, which is distributed between said plurality of computing elements during a service session, wherein the service generic code supports a plurality of differing types of service during a service session, said service generic code when in use comprising: [pg. 7, l. 1-pg. 8, l. 6]

a session manager which performs functions generic to said plurality of differing types of service during service sessions; [pg. 10, ll. 7-14]

for each type of said differing types of service, said session manager is arranged during a service session in which a plurality of participants participate, to generate a separate event message in response to each discrete change of a session-related status of an individual one of the plurality of participants in the session, the discrete changes in the session-related status of each of the individual participants including each individual participant joining the session and that same individual participant leaving the session,

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separate event messages respectively indicating the joining and leaving of the session of

that same individual participant, [pg. 13, l. 24-pg. 14, l. 15 and pg. 16, ll. 6-14]

wherein a service-session event handler receives logically uncombined events

transmitted in the separate event messages respectively generated in response to each

change in the session-related status of said plurality of participants without any historical

data; and [pg. 17, l. 20-pg. 19, l. 8]

the service session event handler determines respective charges for each particular

participant's participation in the session based on that participant's discrete changes in

status including that individual participant's joining and leaving the session as well as

each of the other participant's changes in status including each of the other participant's

joining and leaving the session. [pg. 19, l. 9-pg. 23, l. 22]

36.   In a telecommunications system, an apparatus arranged to generate billing

records for participation in a service session, in which a plurality of participants.

participate, provided by the telecommunications system, said apparatus comprising: [pg.

19, l. 9-pg. 23, l. 22]

means to receive logically uncombined events transmitted in respective separate

event messages indicating respective discrete changes in the session-related status of

individual participants in said service session without any historical data, the discrete

changes in the session-related status of each of the individual participants including each

individual participant joining the session and that same individual participant leaving the

session, separate event messages respectively indicating the joining and leaving of the session of that same individual participant; and [pg. 17, l. 20-pg. 19, l. 8]

means to generate a plurality of billing records each containing data indicating a charge for a different individual participant's participation in said service session, wherein a billing record indicating a charge for a particular participant's participation in said service session includes data derived from logically uncombined events transmitted in respective separate event messages indicating respective discrete changes in the session-related status of each of the individual participants' joining and leaving the session indicated in separate messages as well as respective separate messages indicating the respective discrete changes in the session-related status of at least one other participant's joining and leaving of the session such that charge indicated for each of the individual participants is dependent on the status of that same individual participant and the status of the at least one other participant. [pg. 13, l. 24-pg. 14, l. 15; pg. 16, ll. 6-14; and pg. 19, l. 9-pg. 23, l. 22]

49.   A communications service provision support system which supports multiple different types of services during service sessions, said system when in use comprising: [Fig. 3]

a service-session manager which performs functions generic to each of said multiple different types of services during service sessions, for each of said multiple types of service, said service-session manager being arranged to instantiate a service-

generic service session object to control each service-session, the service-generic service

session objects each being arranged, during a service session in which a plurality of

participants participate to: [pg. 7, l. 1-pg. 8, l. 6; pg. 10, ll. 7-14]

generate during the service-session a plurality of separate, service-generic

service-session behavior related event messages, each event message indicating a

logically uncombined event containing no history data, each logically uncombined

event indicating a discrete and immediate change in the service-session behavior

related status of an individual one of said plurality of participants of the service-

session, the respective event messages being generated for at least some of said

plurality of participants; and [pg. 13, l. 24-pg. 14, l. 15; pg. 16, ll. 6-14; pg. 17, l.

20-pg. 19, l. 8]

transmit said events in the respective event messages being generated for at

least some of the plurality of participants; [pg. 17, l. 20-pg. 19, l. 8]

a service-generic event handler which receives the transmitted events in the

respective separate event messages from each of said service-generic service session

objects, and processes the events in the respective event messages from each of the

service-generic service session objects, the processing including determining a charge for

at least some of the plurality of participants based on that participant's discrete and

immediate changes in status including that individual participant's joining and leaving

the session as well as each of the other participant's discrete and immediate changes in

status including the each of the other participant's joining and leaving the session. [pg.

19, l. 9-pg. 23, l. 22]

50.   A computer-implemented method of generically notifying service-generic service-session behavior related events to a service-generic event handler and processing the events in the service-generic event handler, the events occurring during a plurality of service sessions in which a plurality of participants participate, the service-sessions being provided in a communications service provision support system, said method comprising: [pg. 7, l. 1-pg. 8, l. 6]

for at least some of the participants in each service-session, generating during said service-sessions a plurality of separate service-generic service-session behavior related event messages, each event message containing a logically uncombined event containing no history data and comprising a discrete and immediate change in the service-session behavior related status of an individual one of said plurality of participants of the service-session, the discrete and immediate changes in the service session-related status of each of the plurality of participants of the service-session including each individual participant joining the session and that same individual participant leaving the session, separate event messages respectively indicating the joining and leaving of the session of that same individual participant; and [pg. 13, l. 24-pg. 14, l. 15 and pg. 16, ll. 6-14; pg. 17, l. 20-pg. 19, l. 8]

transmitting said plurality of the separate service-generic service-session behavior related event messages each containing a logically uncombined event to a service-generic

event handler, from each of said service sessions; and [pg. 17, l. 20-pg. 19, l. 8]

processing in the service-generic event handler the events contained in the separate event messages, the processing including determining a charge for each of the participants based on that participant's discrete and immediate changes in status including that individual participant's joining and leaving the session as well as at least one of the other participant's discrete and immediate changes in status including the other participant's joining and leaving the session. [pg. 19, l. 9-pg. 23, l. 22]

62.   In a telecommunications system, an apparatus arranged to generate billing records for participation in a service session in which a plurality of participants participate, the service session being provided by the telecommunications system, said apparatus comprising: [pg. 7, l. 1-pg. 8, l. 6]

means for generating event messages indicating discrete changes in the session-related status of individual participants in said service session, said changes including at least a participant joining the session and that same participant leaving the session, and wherein separate messages are generated in respect of the participant joining the session and in respect of that same participant leaving the session; and [pg. 13, l. 24-pg. 14, l. 15 and pg. 16, ll. 6-14]

event-handling means for receiving said event messages and generating a plurality of billing records each containing data indicating a charge for a respective different individual participant's participation in said service session, wherein the generation of a

billing record for a particular participant's participation in said service session is

performed as a function both of event messages indicating discrete changes in the

session-related status of that particular participant and of event messages indicating

discrete changes in the session-related status of at least one of the other participant(s) in

said service session, such that the charge indicated for said particular participant is

dependent on the status of said other participant(s) during said service session and the

status of said particular participant. [pg. 17, l. 20-pg. 23, l. 22]

63.   In a telecommunications system, a computer implemented method of

generating billing records for participation in a service session in which a plurality of

participants participate, the service session being provided by the telecommunications

system, the method comprising: [pg. 7, l. 1-pg. 8, l. 6]

generating event messages indicating discrete changes in the session-related status

of participants in said service session, the changes in the session-related status of

participants including each individual participant joining the session and that same

individual participant leaving the session, wherein separate messages are generated in

respect to each participant joining the session and in respect of that same participant

leaving a session; and [pg. 13, l. 24-pg. 14, l. 15 and pg. 16, ll. 6-14]

processing the generated event messages to generate a plurality of billing records

each containing data indicating a charge for a respective different participant's

participation in said service session, wherein the generation of a billing record for a

particular participant's participation in said service session is performed as a function

both of event messages indicating discrete changes in the session-related status of that

particular participant and of event messages indicating discrete changes in the session-

related status of at least one of the other participants in said service session, such that the

charge indicated for said particular participant is dependent on its own status during the

service session and the status of said at least one of the other participants during said

service session. [pg. 17, l. 20-pg. 23, l. 22]

(VI) <u>GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL</u>

Whether claims 20, 36-37, 39, 49-50 and 62-63 are anticipated under 35 U.S.C. §102 by and/or "obvious" under 35 U.S.C. §103 over TINA-1, TINA-2 and TINA-3.

Whether claims 20-28 and 30-31 are anticipated under 35 U.S.C. §102 by and/or "obvious" under 35 U.S.C. §103 over Yates.

Whether claim 29 is "obvious" under 35 U.S.C. §103 over Yates in view of Ginzboorg.

(VII) <u>ARGUMENT</u>

<u>Claims 20, 36-37, 39, 49-50 and 62-63 are not anticipated under 35 U.S.C.</u>

<u>§102(b) by or "obvious" under 35 U.S.C. §103 over TINA-1, TINA-2 and TINA-3.</u>

Section 7 of the Office Action alleges that at least one limitation of claim 20 is

disclosed by TINA-1, at least one limitation of claim 20 is disclosed by TINA-2, and at

least one limitation of claim 20 is disclosed by TINA-3. There is no allegation in section

7 that a <u>single</u> one of the TINA documents (TINA-1, TINA-2 <u>or</u> TINA-3) discloses each

element of claim 20. Instead, section 7 merely alleges that all of the limitations of claim

20 are disclosed by the combination of TINA-1, TINA-2 and TINA-3.

Accordingly, Appellant respectfully submits that the rejection of independent

claim 20 under 35 U.S.C. §102 as allegedly being anticipated by TINA-1, TINA-2 and

TINA-3 is deficient on its face. That is, anticipation under section 102 of the Patent Act

requires that a prior art reference disclose every claim element of the claimed invention.

See, e.g., *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.,* 806 F.2d 1565, 1574 (Fed. Cir.

1986). While other references may be used to interpret an allegedly anticipating

reference, anticipation must be found in a <u>**single**</u> reference (emphasis added). See, e.g.,

Studiengesellschaft Kohle, G.m.b.H. v. Dart Indus., Inc., 726 f.2d 724, 726-27 (Fed. Cir.

1984).

Each of the TINA documents is a separate document. For example, the named

authors Martin Chapman and Stefano Montesi and editor Martin Chapman of TINA-1 do

not overlap at all with the named authors and/or editors of TINA-2 or TINA-3. Each of

the TINA documents was published at a different time. Section 7 of the Office Action fails to even allege that one of the TINA documents (TINA-1, TINA-2 or TINA-3) as a single reference discloses every element of claim 20. Instead, section 7 merely alleges that at least one of the limitations is disclosed by TINA-1, at least another one of the limitations of claim 20 is disclosed by TINA-2, and at least one of the other limitations of claim 20 is disclosed by TINA-3. Similar comments apply to section 15 of the Office Action. That is, section 15 of the Office Action fails to even allege that each limitation required by claim 62 is disclosed by a single reference (e.g., TINA-1, TINA-2 or TINA-3). Instead, section 15 merely alleges that the limitations of claim 62 are disclosed by the combination of TINA-1, TINA-2 and TINA-3. Accordingly, Appellant respectfully submits that the rejections of claims 20 and 62 under 35 U.S.C. §102 in view of TINA-1, TINA-2 and TINA-3 are clearly deficient. Similar comments apply to independent claims 36, 49-50 and 63.

The Office Action's arguments in sections 36 and 37 also imply that each element of the claimed invention is not disclosed by the TINA documents. Namely, section 37 resorts to a rationale in which "Finding a policy for charging of multi-party session services where determination of charges depend on state changes of other participants of a session is merely one of several straight forward possibilities from which a skilled person in the art would select, in accordance with circumstances, without the exercise of inventive skill (emphasis added)." This rationale under which one of ordinary skill in the art would select determination of charges depending on the state changes of a session's

participants (as claimed) suggests that each element of the claimed invention is not disclosed by the TINA documents. The absence of any element of the claim from the cited reference negates anticipation. See, e.g., *Structural Rubber Prods. v. Park Rubber Co.,* 749 F.2d 707, 715 (Fed. Cir. 1984). Anticipation is not shown even if the differences between the claims and the prior art reference are insubstantial and the missing elements could be supplied by the knowledge of one skilled in the art. See, e.g., *Structural Rubber Prods.,* 749 F.2d at 716-17.

In order to establish a *prima facie* case of obviousness, all of the claim limitations must be taught or suggested by the prior art and there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. With respect to the rejection of the claims under 35 U.S.C. §103 in view of TINA-1, TINA-2 and TINA-3, the Office Action fails to even allege any reason why one of ordinary skill in the art would have been motivated to combine the teachings of these individual references. For example, section 7 of the Office Action merely recites the language of claim 20 with various portions of TINA-1, TINA-2 or TINA-3 which allegedly disclose these claim limitations. While section 7 provides a listing of various sections of TINA-1, TINA-2 and TINA-3, there is no allegation of why one of ordinary skill in the art would have been motivated to combine these reference teachings. Similar comments apply to independent claims 36, 49-50 and 62-63. The rejection of claims 20, 36-37, 39, 49-50 and 62-63 under 35 U.S.C. §103 is thus deficient on its face.

Even if the individual references TINA-1, TINA-2 and TINA-3 were combined, the combination would not have taught or suggested all of the claim limitations. For example, the combination would not have taught or suggested the following limitations required by independent claim 20 and its dependents:

> "wherein a service-session event handler receives logically uncombined events transmitted in the separate event messages respectively generated in response to each change in the session-related status of said plurality of participants without any historical data; and
> the service session event handler determines respective charges for each particular participant's participation in the session based on that participant's discrete changes in status including that individual participant's joining and leaving the session as well as each of the other participant's changes in status including each of the other participant's joining and leaving the session."

Similar (but not necessarily identical) comments apply to independent claims 36, 49 and 50.

Through the above-identified limitations, charges for a particular session participant is determined not only based on that participant's discrete changes in status from joining and leaving the session, but also at least one other participant's discrete changes in status from joining and leaving the session. Each of these changes in status are indicated in separate messages without any historical data. If there are suddenly more participants in a service session, the price per session participant at that specific instant can be reduced.

The TINA documents fail to teach or suggest generating separate event messages in response to a participant joining a session as a session-related status change without any historical data and with respect to the same participant leaving the session as a session-related status change without any historical data. Section 7.3 (specifically identified by the Office Action) of TINA-2 discloses an event-driven accounting management architecture. While this section of TINA-2 discloses that the accounting management architecture should be event driven so that a telecommunications management network generates a notification message based on the occurrence of an event, there is no teaching or suggestion of the information in this notification message relating to a single, logically uncombined event with respect to a participant joining or leaving without historical data. Accordingly, separate event messages being respectively generated in response to a participant joining a session and in response to the same participant leaving a session is not disclosed or suggested by TINA-2.

Section 7.3 makes explicit reference to an "Event as a common call record." In particular, section 7.3 explicitly states "...accounting events can be understood as a common call record. When events are logged in a central server, they are in fact equivalent to call records." Appellant respectfully submits that section 7.3 thus discloses accounting events in the context of communicating logically combined event data to an event handler, not logically uncombined event data without historical data. This is consistent with the manner in which network call records are conventionally handled. For example, Federal Standard 1037C: *Telecommunications: Glossary of*

Telecommunication Terms defines a call record "recorded data pertaining to a single call." Federal Standard 1037C defines a "call" in several contexts. However, the relevant context in this case is "4. The operations required to establish, maintain and release a connection."[1] If anything, section 7.3 of TINA-2 thus discloses completed calls (i.e., calls which have been established, maintained and <u>released</u>) comprising event message information which are forwarded to a metering monitor (see Fig. 7.8 of TINA-2). TINA-2 thus teaches away from logically uncombined events transmitted in separate event messages without historical data respectively generated with respect to a participant joining a session and the same participant leaving the session. Instead, the completed calls disclosed by TINA-2 comprise event message information which is logically combined and thus a single event message informs the event handler of multiple events (logically combined events).

None of the sections of the TINA documents specifically identified in section 36 (arguments section) of the Office Action disclose the above-noted claim limitations. For example, section 7.2.2 Basic Accounting Cycle of TINA-2 states, *inter alia,* the following:

> **"7.2.2 Basic Accounting Cycle**
> The accounting management consists of four cycles, namely metering, classifying, charging, and tariffing, as it was identified by [59].
> - *Metering*: the tracking and recording of usage of resources ([59], p.8). Metering is the first step and the basis of all

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[1] See section (IX) Evidence Appendix of this Brief providing definitions of "call" and "call record" from Federal Standard 1037C.

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the following accounting activities. Metering is mostly a resource level accounting problems.

- *Classification*: classification of metering information into a set of classes based on usage of service, resources being used, zone information, which corresponds to the distance between the caller and callee, and so on. A major objective of the classification is to categorize and to reduce the amount of metering information such that tariffing is performed with ease.

- *Tariffing*: a step to calculate charging (billing) information from the classification obtained in the previous cycle and the tariff structure. The tariff structure is often represented by a table of costs for each service category. It may change over time, and its structure usually depends on service provider.

- *Billing*: a process of charging (billing) information being stored and then sent to a customer (an entity the service is being provided). The billing schedule, either monthly, daily, or hourly, can depend on the agreement (contract) between the customer and the service provider."

Section 7.2.2 relates to the general proposition that the manner of data collection is indirectly influenced by a tariff structure. However, there is no teaching or suggestion of logically uncombined events without historical data transmitted in separate event messages respectively generated in response to a participant joining a session as a session-related status change and that participant leaving the session as a session-related status change.

The section entitled TariffStructure (specifically identified by the Office Action) on page 7-141 of TINA-2 states the following:

"*TariffStructure*: TariffStructure is essentially a function. Provider calculates charge/charging-rate from a given accounting state, whether the user is using a video phone or a voice conference. On the other hand, the user tends to look at a service

as a sequence of accounting events, selecting a menu or clicking a mouse button, and so on. Therefore we conclude that provider's view is mostly state-based whereas user's view is more of event-based. For this reason, this interface may support the two views. The behavior of the function itself is provider-specific, therefore no common tariffing scheme is assumed. The purpose of this interface is to provide a common object-oriented interface for each provider-specific tariffing scheme."

The section entitled "Policy-based accounting control" (specifically identified by

the Office Action) on page 7-142 of TINA-2 states the following:

> *"Policy-based accounting control*: a policy is a set of rules to be applied to the objects in a domain. In contrast to a management context, which is only applied to the objects in a service session, a policy can be applied to all the objects in an accounting domain. In other words, a management context is more dynamic and service-oriented whereas a policy is more static and resource-oriented. An accounting management policy can be updated, or switched to a new policy. Two policies may be applied to a group of objects at the same time, when two domains are federated."

Section 7.4.5 Accounting Event (specifically identified by the Office Action) on

page 7-149 in TINA-2 states, *inter alia*, the following:

> **"7.4.5 Accounting Event**
> The accounting event is an event with an accounting data. An accounting event may be encrypted, message-integrity-check (MIC)'ed, or non-repudiated, following the security policy of the domain. An accounting event usually carry one accounting data, but multiple of accounting data may be piggybacked in one accounting event, for the sake of efficiency. The accountable event is produced at an accountable object, and may be carried by DPE event management mechanisms such as CORBA event service or DPE notification service, and the event is consumed by an metering manager or a by notification interface of another accountable object."

Section 7.7.3 Event Management Ladder (specifically identified by the Office

Action) on page 7-172 of TINA-2 states, *inter alia*, the following:

"7.7.3 Event Management Ladder
Since some of the resource level accounting activities are triggered by a service transaction, and are sustained only for the duration of the service transaction, it is natural that the context for the accounting event management be established for those service-oriented accounting management. The context is to be established at the beginning of the service transaction, and is to be resolved at the end of the service transaction.

In contrast to the TMN-style accounting management system shown on the right side of the figure, the ladder is more service-oriented, more dynamic than the TMN-style accounting management. In particular, the added flexibility offered by the ladder systems may be more attractive to the customizable accounting management, e.g., On-line billing.

The two accounting systems can interwork. For example, an accountable object in the ladder can send an event to the EFD, as it is shown as e1 in the figure. The interworking between the two accounting systems is the key of the fine-grain migration from the TMN-style accounting management to a more TINA generic accounting management system based on the event management ladder."

Section 4.4.17 Service Session Accounting (specifically identified by the Office

Action) on page 111 of TINA-3 states, *inter alia,* the following:

"4.4.17 Service Session Accounting
This scenario shows how the accounting events are pushed from lower levels up to the user agent that finally stores the information. Figure 4-28 provides a graphical representation of this scenario.

In this scenario, we assume a transparent billing context model, where the provider acts as a billing agent for the connectivity provider (CP). Although the flow of accounting events may differ, overall accounting management architecture and necessary component specifications are almost the same for the opaque billing context model.

Bare transport level traffic is measured, as they are specified in NRIM [6], which corresponds to the NFC under measurement. The accounting events are recorded, or collected using an event management ladder [7], such that usage information of the NFC is collected by CC. Although network resource components such as LNC, TM, etc. do not appear in the figure, they are assumed as they are described in NRA, forming an event management ladder when their instances are created.

In WYSWYP (What You See is What You Pay) [13] performance monitoring, performance and traffic on SFC are measured at SFEP, with assistance from TCSM (not shown in the figure). This provision is particularly useful for connection-less traffic on IP networks, where internet service provider (CP) is not concerned with per connection QoS or its traffic measurement. The accounting management events, which may include both traffic measurement and performance monitoring results, are sent to and collected by CSM, via TCSM in the user domain.

Accounting events (records) are passed to CSM from CC. When on-line billing is used, filtered accounting events, which may cause a change in the provider's billing status, are passed on-the-fly during the service transaction. When on-line billing is not used, only the calibrated billing information is passed from CC to CSM at the conclusion of the service transaction. The billing information is calibrated by taking both performance monitoring results and price compensation scheme into account, both of which should be agreed at the beginning of the service transaction, as part of management context negotiation."

None of the specifically identified sections reproduced above from TINA-2 and TINA-3 discloses logically uncombined events without historical data transmitted in separate event messages respectively generated in response to a participant joining a session as a session related status change and that same participant leaving the session as a session-related status changed.

Section 36 of the Office Action concludes by apparently arguing that the above-identified portions of TINA-2 and TINA-3 disclose "the necessary means and

components to accomplish the determination of charges for a session participant on the basis of discrete changes of that participant joining and leaving a session, as well as at least another participant's joining and leaving the session." However, Appellant respectfully submits that even assuming arguendo that the TINA documents discloses "the necessary means and components to accomplish" the claim limitation of logically uncombined events transmitted in separate event messages respectively generated in response to an individual participant's joining a session as a session-related status change without any historical data and with respect to that participant's leaving the session as a session-related status change without any historical data, there is no motivation to one of ordinary skill in the art to actually accomplish this claim limitation and thus arrive at the the present invention. None of the TINA documents appreciates the benefits of being able to adjust the price per session participant at the specific instant that a participant joins or leaves a session. For example, none of the TINA documents appreciates the benefits that a price per session participant can be immediately reduced at the specific instance in time that one additional participant joins the session. Even assuming arguendo that the TINA documents contains the "necessary means and components" to accomplish a feature does not necessarily mean that one of ordinary skill in the art would have been motivated to do so.

The TINA documents fail to teach or suggest determining charges for each participant's participation in a session based on that participant's discrete changes of joining and leaving the session as well as at least one other participant's discrete changes

in joining and leaving the session. Again, each of these discrete changes in status are transmitted in separate event messages. Section 37 of the Office Action states, *inter alia*, the following:

> "Finding a policy for charging of multi-party session services where determination of charges depend on state changes of other participants of a session is merely one of several straightforward possibilities from which a skilled person in the art would select, in accordance with circumstances, without the exercise of inventive skill. Other straightforward possibilities for charging based on event messages would be e.g. the charging depending on time of event, duration of session participation, etc (emphasis added)."

This rationale clearly involves applying an improper "obvious to try" rationale. "The admonition that 'obvious to try' is not the standard under §103 has been directed mainly at two kinds of error. In some cases, what would have been 'obvious to try' would have been to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no direction as to which of many possible choices is likely to be successful...." *In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988) (citations omitted).

The TINA documents provide no direction toward determining charges for each particular participant's participation in a session based on that participant's discrete status changes in joining and leaving a session as logically uncombined events without any historical data as well as another participant's discrete status changes in joining and leaving a session as logically uncombined events without any historical data. If anything,

TINA-2's reference to a "common call record" in section 7.3 (pg. 142) suggests charging based on logically combined events. Moreover, none of the TINA documents appreciates the benefits derived from this feature such as being able to instantaneously determine a change in price per session participant when a participant leaves or joins a session.

Independent claim 63 requires, *inter alia*, "processing the generated event messages to generate a plurality of billing records each containing data indicating a charge for a respective different participant's participation in said service session, wherein the generation of a billing record for a particular participant's participation in said service session is performed as a function both of event messages indicating discrete changes in the session-related status of that particular participant and of event messages indicating discrete changes in the session-related status of at least one of the other participants in said service session, such that the charge indicated for said particular participant is dependent on its own status during the service session and the status of said at least one of the other participants during said service session." Similar comments apply to independent claim 62. None of the TINA documents alone or in any combination thereof teaches or suggests the above-noted limitation. Moreover, as discussed above with respect to section 37 of the Office Action, the "obvious to try" rationale provided with respect to charging a plurality of billing records each containing a charge for a participant based on that participant's event messages indicating that participant's discrete session-related status changes and those of another participant is without merit.

Claims 20-28, 30 and 31 are not anticipated under 35 U.S.C. §102(e) by or "obvious" under 35 U.S.C. §103 over Yates.

Independent claim 20 requires, *inter alia,* "wherein a service-session event handler receives logically uncombined events transmitted in the separate event messages respectively generated in response to each change in the session-related status of said plurality of participants without any historical data; and the service session event handler determines respective charges for each particular participant's participation in the session based on that participant's discrete changes in status including that individual participant's joining and leaving the session as well as each of the other participant's changes in status including each of the other participant's joining and leaving the session."

The above-noted limitations of independent claim 20 are supported by, for example, page 18, line 12 to page 20 of the specification which states, *inter alia,* the following:

> "It is a characteristic of the event messages transmitted to the event handler 31 that **the events detailed in the event messages contain no history data. In other words, the events are not logically combined**, and each message concerns only an instantaneous event which has just occurred in the session. **This is to be compared with other known ways of generating events, which generally include calculating a duration, by referring to historical usage start date/time on receiving a usage stop date/time**. By the events transmitted to the event handler not being logically combined, the flexibility of processing which may be subsequently applied to the events is maintained at a high level (emphasis added)."

Related description can be found, for example, on page 2, lines 6-13 which states

the following:

> "In this regard, chargeable events, other than subscription-type events, have in the past been generated not as a record of an instantaneous event, but as what as may be referred to as **a 'combined' event, generated when instantaneous events are logically combined. For example, in conventional telephony, a chargeable event is recorded in a call record, which specifies the duration of the call by means of both a start time and an end time. In this sense, the chargeable event recorded in the call record is a 'combined' event, consisting of data specifying more than one instantaneous event** (emphasis added)."

The above portions of the specification therefore distinguish between a logically

uncombined event having no historical data and a "combined event" having data

specifying more than one instantaneous event. A specific example of a "combined

event" is a call record[2] or duration specified by a usage stop (or end) date/time as well as

a historical usage start date/time.

Col. 11, lines 38-45 of Yates makes reference to a "temporal period." The

wording "period" described in this portion of Yates implies at least a start date/time and a

stop date/time. That is, a period of time must be indicated. Accordingly, the "temporal

period" disclosed in Yates is a <u>combined</u> event which makes reference to historical data,

not a logically uncombined event having no historical data. Similar to the combined

event described in the above quoted portions of the originally-filed specification, the

---

[2] As discussed above, Section 7.3 (pg. 142) of TINA-2 describes an "Event as a common <u>call record</u> (emphasis added)."

"temporal period" disclosed in Yates makes reference to a stop date/time <u>and to a historical</u> start date/time and thus forms a combined event.

Each event message in Yates is not capable of being adapted to indicate just a start or just an end. That is, the event messages refer to periods of time -- thus requiring both a start and a stop to define the period of time per event message. Each event message in Yates therefore refers to a historical discrete change (e.g., the date/time of the session start) as well as the change triggering the event message (the end of the period). Two date/time stamps are therefore required in Yates to define the period -- one date/time stamp indicating the start and the other date/time stamp indicating the stop. The temporal period disclosed in Yates therefore makes reference to a combined event having historical data, rather than a logically uncombined event without any historical data. The present invention does not require a grouping together of a historical start and later stop date/time to define a "duration" or "temporal period." Each event message may, for example, simply record either (only) a start or a stop date/time as a single discrete event.

Through the logically uncombined events without history data, the flexibility of processing which may be subsequently applied to the events is maintained at a high level. (See page 18, lines 18-20 of the specification). For example, if there is suddenly more participants in a service session, the price per session participant at that specific instant can be reduced. This benefit would not be possible in Yates since each participant would generate a start and stop message only, and dynamically registering session related events

would not be possible. That is, it would be possible to adjust for the proportion of time

per user only after the last user had left the session (which would then allow a "temporal

period" to be recorded in an event message) in Yates. This is not necessary in the

invention required by claim 20. Similarly, if a user wanted to suddenly upgrade their

session features mid-session, then the present invention enables this to generate an event

message. There is no need for the session itself to be terminated in favor of a newly

started session having these new features.

Claim 29 is not "obvious" under 35 U.S.C. §103 over Yates in view of Ginzboorg.

Claim 29 depends from claim 20, and thus Appellant submits that the above-described

arguments with respect to claim 20 apply equally to claim 29. Ginzboorg fails to remedy

the above-described deficiencies of Yates. Accordingly, even if these references were

combined as proposed by the Office Action, the combination would not have rendered
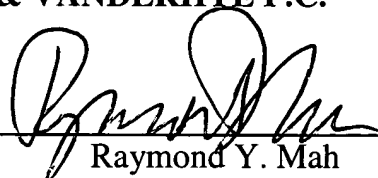
claim 29 obvious.

CONCLUSION

In conclusion it is believed that the application is in clear condition for allowance;

therefore, early reversal of the Final Rejection and passage of the subject application to

issue are earnestly solicited.

Respectfully submitted,

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(VIII)   CLAIMS APPENDIX

1.-19. (canceled)

20.   A communications system comprising a plurality of client side and server side computing elements, each computing element supported by a distributed processing environment whereby distributed software objects in different physical parts of the system interact by passing messages via data communications links, the communications system including service generic code and service specific code, which is distributed between said plurality of computing elements during a service session, wherein the service generic code supports a plurality of differing types of service during a service session, said service generic code when in use comprising:

a session manager which performs functions generic to said plurality of differing types of service during service sessions;

for each type of said differing types of service, said session manager is arranged during a service session in which a plurality of participants participate, to generate a separate event message in response to each discrete change of a session-related status of an individual one of the plurality of participants in the session, the discrete changes in the session-related status of each of the individual participants including each individual participant joining the session and that same individual participant leaving the session, separate event messages respectively indicating the joining and leaving of the session of that same individual participant,

wherein a service-session event handler receives [[a]] logically uncombined events transmitted in the separate event messages respectively generated in response to each change in the session-related status of said plurality of participants without any historical data; and

the service session event handler determines respective charges for each particular participant's participation in the session based on that participant's discrete changes in status including that individual participant's joining and leaving the session as well as each of the other participant's changes in status including each of the other participant's joining and leaving the session.

21.   The communications system as in claim 20, wherein the computing elements include:

a retailer server;

a plurality of third party servers, each third party server being arranged to have access to a data base for the storage and retrieval of service related data; and

a plurality of user terminals connected to the retailer server via a data communications network.

22.   The communications system as in claim 21, wherein the third party servers are connected remotely to the retailer server via communications links.

23.   The communications system as in claim 21, wherein the third party servers

are co-located with the retailer server.

24.   The communications system as in claim 21, wherein the retailer server

comprises one or more servers interconnected in a network.

25.   The communications system as in claim 21, wherein at least one of said

plurality of third party servers comprises a plurality of servers interconnected in a

network.

26.   The communications system as in claim 21, wherein at least one of the user

terminals comprises a mobile communications terminal.

27.   The communications system as in claim 20, wherein said service-session

event handler comprises a pricing data processor for determining said charges.

28.   The communications system as in claim 27, wherein said pricing data

processor is arranged to perform service-specific processing of said event messages.

29.   The communications system as claimed in claim 20, wherein said service-

session event handler comprises a service usage monitor for storing and/or analyzing

usage of said services over statistically significant numbers of service sessions.

30.　The communications system as claimed in claim 20, wherein said service-session event handler comprises a cost data processor for costing a service provided by a third party during a service session.

31.　The communications system as claimed in claim 20, wherein said service-session event handler comprises an event message multiplier for copying said event messages and distributing said copied messages to a plurality of event processors.

32.-35.　　(canceled)

36.　In a telecommunications system, an apparatus arranged to generate billing records for participation in a service session, in which a plurality of participants participate, provided by the telecommunications system, said apparatus comprising:

　　means to receive logically uncombined events transmitted in respective separate event messages indicating respective discrete changes in the session-related status of individual participants in said service session without any historical data, the discrete changes in the session-related status of each of the individual participants including each individual participant joining the session and that same individual participant leaving the session, separate event messages respectively indicating the joining and leaving of the

session of that same individual participant; and

means to generate a plurality of billing records each containing data indicating a charge for a different individual participant's participation in said service session, wherein a billing record indicating a charge for a particular participant's participation in said service session includes data derived from logically uncombined events transmitted in respective separate event messages indicating respective discrete changes in the session-related status of each of the individual participants' joining and leaving the session indicated in separate messages as well as respective separate messages indicating the respective discrete changes in the session-related status of at least one other participant's joining and leaving of the session such that charge indicated for each of the individual participants is dependent on the status of that same individual participant and the status of the at least one other participant.

37.   The apparatus according to claim 36, wherein the charge indicated for said particular participant is dependent on the number of other participants in said service session.

38.   (canceled)

39.   The apparatus according to claim 37, wherein the charges indicated for said other participants are dependent only on logically uncombined events indicating

respective changes in statuses of the respective participants for which the billing records

are produced.

40.-48.   (canceled)

49.   A communications service provision support system which supports

multiple different types of services during service sessions, said system when in use

comprising:

a service-session manager which performs functions generic to each of said

multiple different types of services during service sessions, for each of said multiple

types of service, said service-session manager being arranged to instantiate a service-

generic service session object to control each service-session, the service-generic service

session objects each being arranged, during a service session in which a plurality of

participants participate to:

generate during the service-session a plurality of separate, service-generic

service-session behavior related event messages, each event message indicating a

logically uncombined event containing no history data, each logically uncombined

event indicating a discrete and immediate change in the service-session behavior

related status of an individual one of said plurality of participants of the service-

session, the respective event messages being generated for at least some of said

plurality of participants; and

transmit said events in the respective event messages being generated for at

least some of the plurality of participants;

a service-generic event handler which receives the transmitted events in the

respective separate event messages from each of said service-generic service session

objects, and processes the events in the respective event messages from each of the

service-generic service session objects, the processing including determining a charge for

at least some of the plurality of participants based on that participant's discrete and

immediate changes in status including that individual participant's joining and leaving

the session as well as each of the other participant's discrete and immediate changes in

status including the each of the other participant's joining and leaving the session.

50.   A computer-implemented method of generically notifying service-generic

service-session behavior related events to a service-generic event handler and processing

the events in the service-generic event handler, the events occurring during a plurality of

service sessions in which a plurality of participants participate, the service-sessions being

provided in a communications service provision support system, said method comprising:

for at least some of the participants in each service-session, generating during said

service-sessions a plurality of separate service-generic service-session behavior related

event messages, each event message containing a logically uncombined event containing

no history data and comprising a discrete and immediate change in the service-session

behavior related status of an individual one of said plurality of participants of the service-

session, the discrete and immediate changes in the service session-related status of each

of the plurality of participants of the service-session including each individual participant

joining the session and that same individual participant leaving the session, separate

event messages respectively indicating the joining and leaving of the session of that same

individual participant; and

transmitting said plurality of the separate service-generic service-session behavior

related event messages each containing a logically uncombined event to a service-generic

event handler, from each of said service sessions; and

processing in the service-generic event handler the events contained in the

separate event messages, the processing including determining a charge for each of the

participants based on that participant's discrete and immediate changes in status

including that individual participant's joining and leaving the session as well as at least

one of the other participant's discrete and immediate changes in status including the other

participant's joining and leaving the session.

51.-61.   (canceled)

62.   In a telecommunications system, an apparatus arranged to generate billing

records for participation in a service session in which a plurality of participants

participate, the service session being provided by the telecommunications system, said

apparatus comprising:

means for generating event messages indicating discrete changes in the session-related status of individual participants in said service session, said changes including at least a participant joining the session and that same participant leaving the session, and wherein separate messages are generated in respect of the participant joining the session and in respect of that same participant leaving the session; and

event-handling means for receiving said event messages and generating a plurality of billing records each containing data indicating a charge for a respective different individual participant's participation in said service session, wherein the generation of a billing record for a particular participant's participation in said service session is performed as a function both of event messages indicating discrete changes in the session-related status of that particular participant and of event messages indicating discrete changes in the session-related status of at least one of the other participant(s) in said service session, such that the charge indicated for said particular participant is dependent on the status of said other participant(s) during said service session and the status of said particular participant.

63.   In a telecommunications system, a computer implemented method of generating billing records for participation in a service session in which a plurality of participants participate, the service session being provided by the telecommunications system, the method comprising:

generating event messages indicating discrete changes in the session-related status of participants in said service session, the changes in the session-related status of participants including each individual participant joining the session and that same individual participant leaving the session, wherein separate messages are generated in respect to each participant joining the session and in respect of that same participant leaving a session; and

processing the generated event messages to generate a plurality of billing records each containing data indicating a charge for a respective different participant's participation in said service session, wherein the generation of a billing record for a particular participant's participation in said service session is performed as a function both of event messages indicating discrete changes in the session-related status of that particular participant and of event messages indicating discrete changes in the session-related status of at least one of the other participants in said service session, such that the charge indicated for said particular participant is dependent on its own status during the service session and the status of said at least one of the other participants during said service session.

(IX) <u>EVIDENCE APPENDIX</u>

Federal Standard 1037C: *Telecommunications: Glossary of Telecommunication*

Terms (1996) (http://www.its.bldrdoc.gov/fs-1037/gifs/37c-cov.gif) -- Definitions of

terms "call" and "call record."

FEDERAL STANDARD 1037C
Superseding Fed-Std-1037B, 03 June 1991

TELECOMMUNICATIONS: GLOSSARY OF TELECOMMUNICATION TERMS

Prepared By:

National Communications System
Technology & Standards Division

Published By:

General Services Administration
Information Technology Service

August 7, 1996

FSC TELE

call

call: 1. In underlined communications, any demand to underlined set up a underlined connection. **2.** A unit of underlined traffic measurement. (underlined 188) **3.** The actions performed by a underlined call originator. **4.** The operations required to establish, maintain, and release a connection. **5.** To use a connection between two stations. **6.** The action of bringing a underlined computer underlined program, a underlined routine, or a underlined subroutine into effect, usually by specifying the entry conditions and the entry point.

This underlined HTML version of underlined FS-1037C was last generated on Fri Aug 23 00:22:38 MDT 1996

Back to B, Forward to D

- cable
- cable assembly
- cable jacket
- cable cutoff wavelength (λ_{cc})
- cable television relay service (CARS) station
- cable TV (CATV)
- cache memory
- call
- call abandoned
- call accepted signal
- call associated signaling (CAS)
- call attempt
- call back
- call collision
- call completion rate
- call control character
- call control

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call record

call record: Recorded <u>data</u> pertaining to a single <u>call</u>. (<u>188</u>)

This <u>HTML</u> version of <u>FS-1037C</u> was last generated on Fri Aug 23 00:22:38 MDT 1996

<u>Back</u> to B, <u>Forward</u> to D

- <u>cable</u>
- <u>cable assembly</u>
- <u>cable jacket</u>
- <u>cable cutoff wavelength (</u>λ<u>)</u> <u>cc</u>
- <u>cable television relay service (CARS) station</u>
- <u>cable TV (CATV)</u>
- <u>cache memory</u>
- <u>call</u>
- <u>call abandoned</u>
- <u>call accepted signal</u>
- <u>call associated signaling (CAS)</u>
- <u>call attempt</u>
- <u>call back</u>
- <u>call collision</u>
- <u>call completion rate</u>
- <u>call control character</u>
- <u>call control</u>

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(X)   <u>RELATED PROCEEDINGS APPENDIX</u>

None